

NH-11a

Digital Integration Method

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ABSTRACT

This invention is a simplified method of digitally monitoring energy in a system. The power is measured at fixed periods, and the measurements summed in a register or accumulator. When the sum in the register or accumulator is equal to a specified energy divided by the fixed sample period a signal is generated.

In power controllers or solid state power controllers (SSPC), this algorithm is used to the maximum energy load (I^2t). In a solid state switch, this algorithm is used to monitor the energy in a switch and generate a signal when the exceeds a specified safe operating limit